<center>**Remarks**</center>

<u>Status of application</u>

      Claims 1, 3-5, 7-25, 27-29, 31-60 and 62-67 were examined and stand rejected in view of prior art as well as stand rejected for technical issues. The claims have been amended to further clarify Applicant's invention. Reexamination and reconsideration are respectfully requested.

<u>General</u>

      A. Section 101 rejection

      Claims 25-46 stand rejected under 35 U.S.C. 101 on the basis of non-statutory subject matter. Applicant has amended claim 25 to add claim limitations of a computer having a processor and memory so as to more clearly indicate that the claimed system comprises a hardware and software combination. These claim limitations find support in Applicant's specification which expressly state that elements of Applicant's invention may be implemented in hardware, software or firmware (or combinations thereof). This is expressly stated, for example, in Applicant's specification as follows: "...the corresponding apparatus element may be <u>configured in hardware, software, firmware or combinations thereof</u>" (Applicant's specification, paragraph [0039], emphasis added). Applicant's specification also describes in detail a computer hardware and software environment in which Applicant's invention may be implemented (Applicant's specification, paragraphs [0040]-[0051]). Accordingly, as Applicant's claimed invention defines a useful machine or item of manufacture in terms of a hardware and software combination, Applicant respectfully believes that it defines a statutory product and overcomes the rejection of claims 25-46 under Section 101.

<u>Prior art rejections</u>

      A. Section 102 Rejection: Hermansen

      Claims 1, 3-5, 7-13, 15-25, 27-29, 31-37 and 39-46 stand rejected under 35 U.S.C. Section 102 (e) as anticipated by U.S. Patent 6,963,871 to Hermansen et al (hereinafter "Hermansen"). Initially, Applicant notes that in paragraph 5 of the instant Office Action, the Examiner indicates that the Section 102 rejection based on Hermansen

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applies to claims 1-5, 7-13, 15-29, 31-37 and 39-46. However as claims 2 and 26 have been previously canceled, Applicant assumes that the rejection does not extend to those canceled claims.

The Examiner's rejection of the Applicant's independent claims 1 and 25 as follows is representative of the Examiner's rejection of Applicant's claims as anticipated by Hermansen:

> As per independent claims 1, 25, Hermansen teaches a name searching system with multiple processing options, which automatically selects and uses an appropriate cultural-specific set of algorithms to search for database for names and evaluate their proximity to a query name with multiple processing options (col. 3, lines 53-58). Hermansen teaches the claimed, determining whether a particular name matches any names on a list of names, said particular name comprising one or more words (col. 3, lines 59-3.and col. 4, lines 6-9). Hermansen teaches the claimed, generating codes characterizing the particular name by generating a code for each word of the particular name that is based at least in part on phonetic sounds of the word and on whether characters of the word match a pattern occurring in a proper name in a given natural language (Fig. 1, col. 10, lines 21-25 and lines 40-51). Hermansen teaches the claimed, deriving an initial set of any matching names by comparing the codes of the particular name against corresponding codes for the list of names (Fig. 1, col. 10, lines 34-39). Hermansen teaches the claimed, deriving a final set of any matching names by comparing words of the particular name against words of names in the initial set (Fig. 2, col. 11, lines 11-16). Hermansen teaches the claimed, deriving a final set includes calculating a score based upon combinations of words of the particular name and words of names in the initial set (Fig. 3, col. 6, lines 48-50). Hermansen teaches the claimed, calculating a score is based, at least in part, upon number of matching characters in respective words (Fig. 2, col. 14, lines 3-14). Hermansen teaches the claimed, displaying any matching names in the final set having a score greater than an established threshold (Fig. 3, col. 7, lines 53-58).

Under Section 102, a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in the single prior art reference. (See, e.g., MPEP Section 2131.) As will be shown below, Hermansen fails to teach each and every element set forth in Applicant's claims 1, 3-5, 7-13, 15-25, 27-29, 31-37 and 39-46 (as well as other claims), and therefore fails to establish anticipation of the claimed invention under Section 102.

Although at a high level both Hermansen's system and Applicant's invention provide for performing name searches, Hermansen's system is distinguishable from

Applicant's invention in a number of respects. Particular differences between Applicant's claimed invention and Hermansen's system include the manner in which Applicant's solution calculates a "score" for determining whether or not a given name that is being evaluated matches a name in a target set of names (e.g., names on a watch list, suspect list, or the like). When a given name (e.g., from a set of names) is received as input, Applicant's claimed invention provides for initially identifying potentially matching names and then performing more detailed processing for calculating a "score" by comparing words of the given name to words of each of the potentially matching names. (Applicant's specification, paragraph [0068]). For each of the potentially matching names, every word in one name (e.g., the given input name) is compared to every word in a potential matching name (e.g., a name from the list) and a preliminary score is calculated for each word (Applicant's specification, paragraph [108]). More particularly, Applicant's invention provides for calculating this preliminary score for pairs of words based on comparing all characters of the two words (Applicant's specification, paragraph [0121]). Preliminary scores from words of the names that have been compared are then added to generate a final score for a pair of names (Applicant's specification, paragraphs [0110]-[0112]). It should be noted that phonetic codes generated for purposes of identifying preliminarily matching names are not used at this stage in calculation of scores.

Thus, Applicant's approach provides for calculating a score for two names involves comparing all words (e.g., forename, middle name and surname) of the given name against all words of a name from the list and a preliminary score calculated for each pair of names. Furthermore, Applicant's method for scoring two words being compared provides for examining the two words letter by letter (character by character) and calculating a score based upon the number of matching characters in each word and the position within the word at which such matching characters are located (Applicant's specification, paragraph [0125]). Generally, the highest score is given when the same character is in the same position in both of the words; however if the matching letter is in another nearby position this also contributes (although to a lesser degree) to the score calculated for the pair of words (Applicant's specification, paragraph [0126]). These features are specifically described in Applicant's claims. For example, Applicant's claim

1 includes the following claim limitations:

> deriving a final set of any matching names by <u>comparing words of the particular name against words of names in the initial set</u>; wherein deriving the final set includes <u>calculating a score based upon combinations of words of the particular name and words of names in the initial set</u>; and wherein <u>calculating a score is based, at least in part, upon number of matching characters in respective words</u>; and
> displaying any matching names in the final set having a score greater than an established threshold.

(Applicant's claim 1, emphasis added)

The Examiner references Hermansen at col. 11, lines 11-16 and at col. 6, lines 48-60 for the teaching of deriving a final set of matching names by comparing words of the particular name (i.e., input name) against words of names in the initial set (i.e., name from list). However, when one reviews the referenced teachings of Hermansen, one finds that Hermansen does not, in fact, include equivalent teachings. First, at col. 11, lines 11-16 of Hermansen states as follows:

> For example, the inventors have found that names of Arabic and Chinese origin are better processed using custom regularization algorithms rather than by the generalized IPA approach, since names acknowledges as similar in these cultures are often quite distinct phonetically.

(Hermansen, col. 11, lines 11-16)

As illustrated above, this portion of Hermansen makes no mention of comparing words of each name as provided in Applicant's specification and claims. The other portion of Hermansen referenced by the Examiner for these teachings similarly does not, in fact, appear to provide any analogous teachings as col. 6, lines 48-50 provides:

> In the preferred embodiment, <u>linguistic information aggregator 308 generates scores from four data sources</u>.

(Hermansen, col. 6, lines 48-50, emphasis added)

Thus, while Hermansen's system appears to calculate a score from four data sources in some fashion, it does not include the specific teachings of Applicant's claimed invention of comparing every word in a given input name to every word in a potential

matching name in calculating the score for the names. Furthermore, Applicant's claimed invention further provides that the score is calculated based on the number of matching characters in words that are being scored. The Examiner references Hermansen at col. 14, lines 3-14 for the corresponding teachings; however here Hermansen states the following:

> The name checking tool incorporates information regarding <u>variations in spelling, discrepancy in the number of name segments (amount of information included), exclusion of expected information, and positional information to establish a name score,</u> which indicates the probability that the two names represent the same individual. <u>The tool is controlled by a set of configurable parameters.</u> The tool also manages and produces an ordered or unordered list of candidate names with the highest probability of representing the same named person, based on the <u>developer defined criteria</u> for establishing a set of results.

(Hermansen, col. 14, lines 3-14, emphasis added)

As illustrated above, Hermansen's name checking tool <u>may be configured by a developer</u> to consider several factors in calculating a score, including <u>number of name segments and spelling variations</u>. However, Hermansen does not include the specific teaching of calculating a score based on the **number of matching characters in each word of the names being compared** as provided in Applicant's specification and claims. Applicant's review of the balance of the Hermansen reference finds that Hermansen's scoring methodology is only described in very general terms as Hermansen's apparent approach is to allow for developers to customize how scores are calculated to meet their particular requirements. For example, Hermansen describes at col. 5, lines 3-10 that the solution includes library routines for producing a score comparing a query name and database name "based on a variety of user-adjustable parameters" so as to permit tuning of the search methodologies for specific applications (see also col. 14, lines 3-14 of Hermansen which is quoted above).

More generally, Hermansen's solution differs from that of Applicant in that it provides different search algorithms for different languages and/or cultures. Hermansen's system provides for selecting and using a "cultural-specific set of algorithms" to search for names where the processing differs based on culture, ethnicity, distribution and language (Hermansen, col. 3, lines 52-63). In other words, based on a classifying the

likely cultural origin of a given name (e.g., Chinese, Arabic, Hispanic or Russian), Hermansen's system selects a different processing algorithm to perform a search for the given name (Hermansen, col. 5 line 65 - col. 6 line 7). For example, if a given name is classified as a Hispanic name, Hermansen's solution then performs the search using specific Hispanic name processing algorithms (Hermansen, col. 8, lines 36-42). This is not Applicant's approach. Although Applicant's solution does consider language variations in identifying potential matches, Applicant's solution provides a unified scoring methodology which calculates a score (representing the likelihood that two names match) based on examining particular words and characters of the names that are being compared.

Further distinctions between Applicant's invention and that of Hermansen are found in Applicant's dependent claims. For example, Applicant's dependent claim 4 includes the following claim limitations:

> wherein said step of calculating a score includes determining whether a character at a certain position in a first word is at the certain position in a second word.

(Applicant's claim 4)

As discussed above, Applicant's scoring methodology involves comparing characters of each word of two names being compared. This includes examining characters at corresponding positions in the two words to determine if the same character is at the same position (Applicant's specification, paragraph [0126]). The Examiner references Hermansen at col. 9, lines 22-25 and Fig. 7 for the corresponding teachings. However, the referenced portion of Hermansen describes a <u>segment</u> position identifier of a Hispanic name preprocessor which identifies the relative position of the surname and given name stems of a name so as to determine whether name stems are out of position (Hermansen at col. 9, lines 22-25). Significantly, Hermansen's segment position identifier evaluates the positioning of segments (i.e., words) of a given name and thus is not comparable to Applicant's methodology which calculates a score based on positioning of each character of each word of a given name.

As described above in detail, Hermansen's system does not calculate a score for two names being compared based upon comparing each word of the two names nor does

Hermansen examine each character of two words being compared to determine the number of matching characters in the words and the position within the words at which such characters are found. As the limitations of Applicant's claims 1, 3-5, 7-13, 15-25, 27-29, 31-37 and 39-46 are not disclosed or taught by Hermansen, Applicant respectfully submits that the claims distinguish over this reference and overcome any rejection under Section 102.

B. Section 103 Rejection: Hermansen and Stretton

Claims 14, 38, 47-60 and 62-67 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hermansen (above) in view of U.S. Published Application 2006/0095368 to Stretton (hereinafter "Stretton"). As to these claims, the Examiner relies on Hermansen as substantially teaching the claimed invention, but acknowledges that Hermansen fails to teach a suspect list or watch list of names. The Examiner adds Stretton for these teachings.

Under Section 103(a), a patent may not be obtained if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. To establish a prima facie case of obviousness under this section, the Examiner must establish: (1) that there is some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings, (2) that there is a reasonable expectation of success, and (3) that the prior art reference (or references when combined) must teach or suggest all the claim limitations. (See e.g., MPEP 2142). The Hermansen and Stretton references, even when combined, fail to meet the requisite condition of teaching or suggesting all of Applicant's claim limitations.

Applicant's claims are believed to be allowable for at least the reasons cited above (as to the Section 102 rejection) pertaining to the deficiencies of Hermansen as to Applicant's invention. Stretton does not cure any of these deficiencies of Hermansen as to Applicant's invention. Stretton's solution relates to detecting patterns of transfer activity at a given financial account and does not include any teachings of performing a search for matching names. Although Stretton mentions a watch list, Stretton does not

describe searching to determine if a given name is included in the watch list, nor does Stretton describe calculating a score representing the degree of similarity between names as provided in Applicant's specification and claims.

The Hermansen and Stretton references, even when combined to not teach or describe a system and methodology for performing a name search which calculates a score for two names being examined by comparing each character of each word of the two names. Thus, as the combined references do not teach or suggest all the limitations of Applicant's claims, it is respectfully submitted that Applicant's claimed invention as set forth by these claims is distinguishable over the two references, and that the rejection under Section 103 is overcome.

Any dependent claims not explicitly discussed are believed to be allowable by virtue of dependency from Applicant's independent claims, as discussed in detail above.

Conclusion

In view of the foregoing remarks and the amendment to the claims, it is believed that all claims are now in condition for allowance. Hence, it is respectfully requested that the application be passed to issue at an early date.

If for any reason the Examiner feels that a telephone conference would in any way expedite prosecution of the subject application, the Examiner is invited to telephone the undersigned at 925 465 0361.

Respectfully submitted,

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